

Procurement and Auditing Requirements

Compliance with Appendix B to 10 CFR Part 50 and 10 CFR Part 21 When Procuring ASME Section III Components



Yamir Diaz-Castillo

Quality Assurance and Vendor Inspection Branch

Office of Nuclear Reactor Regulation



Agenda

- Background
- Regulations
- Procurement Requirements
- Auditing Requirements
- Summary
- Questions



Background

- NRC's recognition of ASME's accreditation program is documented in Information Notice (IN) 86-21, "Recognition of American Society of Mechanical Engineers Accreditation Program For N Stamp Holders," and its supplements March 31, 1986, December 4, 1986, and April 16, 1991.
- Recognition of ASME's accreditation program only applies to programmatic aspects of the Quality Assurance (QA) programs and ASME Code items.
- Does not apply to non-Code items that may be supplied by ASME's accredited suppliers such as N-type Certificate Holders (CH), Quality System Certificate (QSC) Holders, or Qualified Material Organizations (QMOs)



Background

- Supplement 2 of Information Notice 86-21 also clarified that purchasers of certain ASME Code items may use another method to verify that the ASME Code accredited suppliers are effectively implementing their QA programs.
- Specifically, implementation audits may not be necessary for procuring items that are:
 - Relatively simple and standard in design, manufacturing, and testing.
 - Adaptable to standard or automated inspections or tests of the end product to verify quality characteristics after delivery.



Regulations

- Criterion IV, "Procurement Document Control," of Appendix B to 10 CFR Part 50 states, in part, that:
 - "Measures shall be established to assure that applicable regulatory requirements, design bases, and other requirements which are necessary to assure adequate quality are suitably included or referenced in the documents for procurement of material, equipment, and services, whether purchased by the applicant or by its contractors or subcontractors."



Regulations

- Criterion VII, "Control of Purchased Material,
 Equipment, and Services," of Appendix B to 10 CFR Part
 50 states, in part, that:
 - "Measures shall be established to assure that purchased material, equipment, and services, whether purchased directly or through contractors and subcontractors, conform to the procurement documents. These measures shall include provisions, as appropriate, for source evaluation and selection, objective evidence of quality furnished by the contractor or subcontractor, inspection at the contractor or subcontractor source, and examination of products upon delivery."



Regulations

- □ 10 CFR Part 21.31, "Procurement Documents," states:
 - "Each individual, corporation, partnership, dedicating entity, or other entity subject to the regulations in this part shall ensure that each procurement document for a facility, or a basic component issued by him, her or it on or after January 6, 1978, specifies, when applicable, that the provisions of 10 CFR Part 21 apply."
- Reminder: ASME Section III Code pressure retaining components are basic components (i.e., safety-related)



What Does It All Mean?!?!?!?





Procurement Requirements

- When buying a basic component (i.e., safety-related) from an ASME accredited supplier such as an N-type CH, QSC Holder, or a QMO, must Appendix B to 10 CFR Part 50 and 10 CFR Part 21 be imposed on the procurement documents?
 - When buying a basic component from an N-type CH, or a QSC Holder, or a QMO, Appendix B to 10 CFR Part 50 and 10 CFR Part 21 shall be imposed on the procurement documents.



Procurement Requirements

- Why is this important?
 - Ensures that adequate QA is applied throughout the manufacturing process.
 - Ensures that Appendix B to 10 CFR Part 50 and 10 CFR Part21 are adequately passed down to the sub-suppliers.
- Reminder: Relieving a sub-supplier providing a basic component of their responsibilities under 10 CFR Part 21 is not appropriate.



Auditing Requirements

- If the NRC recognizes the ASME accreditation programs as evidence of having a documented QA program that meets the requirements of Appendix B to 10 CFR Part 50, am I required to audit these type of suppliers?
 - Yes, the NRC's recognition of the ASME accreditation programs only applies to the programmatic aspects of the QA programs. Suppliers still need to ensure that their sub-suppliers are effectively implementing their approved QA programs.
- Regulatory Guide 1.28, "Quality Assurance Program Criteria (Design and Construction), Revision 5, endorses NQA-1-2015, "Quality Assurance Requirements for Nuclear Facility Applications," with certain conditions.
- NQA-1-2015 is incorporated into Subsection NCA of ASME Section III.



Auditing Requirements

- However, implementation audits may not be necessary for procuring items that are:
 - Relatively simple and standard in design, manufacturing, and testing;
 - Adaptable to standard or automated inspections or tests of the end product to verify quality characteristics after delivery.
- Use of this exception should be evaluated and documented.



Auditing Requirements

- If a vendor procures ASME Section III Code material from an non-audited N-type CH or QSC, can the material be classified as a basic component?
 - □ If the vendor issuing the purchase order did not perform a QA implementation audit of the N-type CH or QSC, and decides to perform testing of the material upon receiving it, then the material is not considered a basic component until testing is performed. On the other hand, if the vendor had performed a QA implementation audit, then the material would already be considered a basic component.



Summary

- Imposing Appendix B and 10 CFR Part 21 in the procurement documents:
 - Ensures that adequate QA is applied throughout the manufacturing process.
 - Ensures that both of these regulatory requirements are passed down to the sub-suppliers.
 - Provides reasonable assurance that basic components will perform their intended safety function.
 - Provides a method for licensees and the NRC to be notified of any problems that could potentially render a component inoperable and create a substantial safety hazard.



Summary

- Recognition of the ASME accreditation program applies only to the programmatic aspects of the QA programs audits are required to verify adequate implementation.
- Recognition is not applicable for non-Code items that may be supplied by N-type CHs, QSC Holders, or MOs.
- Audits are not required for items meeting the exceptions listed in Supplement 2 of IN 86-21.



Questions

Contact Information

Yamir Diaz-CastilloMail Stop O-4A17MWashington, DC 20555-0001

Phone: 301-415-2228

Email: yamir.diaz-castillo@nrc.gov



